

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

--1. (Currently Amended) An electronic cash system ~~comprising an electronic cash management apparatus, a settlement apparatus, and a management apparatus, for processing a payment to an amount due with previously deposited funds, said electronic cash system characterized in that~~ for processing a payment for an amount due with previously deposited funds, comprising:

~~said an electronic cash management apparatus includes:~~
~~storage means~~

a virtual bank apparatus having an account management unit
for storing information for identifying a user and ~~[[the]]~~ an
amount of money utilized by said user based on [the] said
previously deposited funds;

~~said settlement apparatus includes:~~

~~settlement instructing means~~

a clearing house apparatus having a clearing unit for
instructing a payment institution in the form of a bank or a
credit card company to settle;

~~said management~~ a center apparatus ~~includes:~~ having a user
device;

a management means unit for managing said information for
identifying a user~~[[,]]~~ and for identifying an account number in
the payment institution of the user~~[[,]]~~ encrypted with a public
key of said ~~settlement~~ clearing house apparatus~~[[;]]~~;

~~balance change instructing means~~ a communication unit for

instructing said electronic cash management apparatus to change the balance of said deposited funds of said user[[,]] that is stored in said ~~storage means~~ account management unit of said ~~electronic cash management~~ virtual bank apparatus[[,]] based on said information for identifying a user managed by said management means; and

~~settlement execution instructing means~~ unit and for instructing said ~~settlement instructing means~~ clearing unit of said ~~settlement processing~~ clearing house apparatus to execute a settlement based on the account number in said payment institution managed by said management means unit.

--2. (Currently Amended) [[An]] The electronic cash system according to claim 1, wherein:

said ~~electronic cash management~~ virtual bank apparatus, said ~~settlement~~ clearing house apparatus, and said management center apparatus perform predetermined mutual authentication processing before communications therebetween.

--3. (Currently Amended) [[An]] The electronic cash system according to claim 1, wherein:

data transmitted between said ~~electronic cash management~~ virtual bank apparatus, said ~~settlement~~ clearing house apparatus and said management center apparatus is encrypted.

--4. and 5. (Cancelled)

--6. (Currently Amended) A method of transferring electronic cash from an information processing apparatus [[2]] in a shop to ~~an information processing apparatus~~ a user device, characterized by:

said information processing apparatus [[1]] in a shop and ~~said information processing apparatus~~ user device mutually authenticating with each other[[,]] and sharing a temporary key therebetween;

said ~~information processing apparatus~~ user device encrypting a monetary amount to be transferred, appended with a signature of said ~~information processing apparatus~~ user device, with said temporary key, and transmitting the same monetary amount to said information processing apparatus [[1]] in a shop;

said information processing apparatus [[1]] in a shop decrypting said monetary amount received thereby with said temporary key[[,]] and adding said monetary amount to [[an]] a monetary amount previously held by said information processing apparatus [[1]] in a shop;

said information processing apparatus [[1]] in a shop encrypting said monetary amount appended with a signature of said ~~information processing apparatus~~ user device with said temporary key[[,]] and transmitting the same encrypted monetary amount to said information processing apparatus [[2]] in a shop;
and

said information processing apparatus [[2]] in a shop decrypting said encrypted monetary amount received thereby with said temporary key[[,]] and subtracting said monetary amount from

[[an]] the monetary amount previously held by said information processing apparatus [[2]] in a shop.

--7. (Currently Amended) [[An]] The electronic cash transfer method according to claim 6, wherein:

said information processing apparatus [[2]] in a shop transmits the monetary amount of electronic cash to be transferred together with a device number unique to said information processing apparatus [[2]] in a shop encrypted with a public key of a management apparatus[[,]] to said ~~information processing apparatus~~ user device.

--8. (Currently Amended) An electronic cash system comprising:

a user device having an information processing apparatus,
a shop, ~~an electronic cash management apparatus~~
a virtual bank,
a ~~settlement apparatus~~ clearing house, and
a management apparatus, center adapted to ~~processing process~~
a payment to an amount due with previously deposited funds,
characterized by:

said ~~information processing apparatus~~ user device transmitting to said shop[[,]] information on an article to be purchased, a number unique to said information processing apparatus encrypted with a public key of said management apparatus center, and ~~transmitting~~ a payment for said article to be purchased [article] encrypted with a public key of said

~~electronic cash management apparatus~~ virtual bank;

said shop confirming said information on the article to be purchased[[,]] received thereby[[,]] and transmitting said number unique to said ~~information processing apparatus~~ user device and a proceed for said article to be purchased article to said management apparatus center;

said management apparatus center decrypting said encrypted number unique to said ~~information processing apparatus~~, user device received thereby[[,]] with a secret key of said management apparatus, center and transmitting said number unique to said ~~information processing apparatus~~ user device and said proceed for the article to be purchased article to said ~~cash management apparatus~~ virtual bank;

said ~~cash management apparatus~~ virtual bank decrypting said encrypted proceed for the article to be purchased article, received thereby[[,]] with a secret key of said ~~cash management apparatus~~, virtual bank and storing the same decrypted proceed together with said number unique to said ~~information processing apparatus~~ user device; and

after a ~~normal~~ completion of said processing[[,]] said ~~information processing apparatus~~ user device subtracting said payment for the article to be purchased article from electronic cash previously held thereby[[,]] and recording [[the]] a resulting ~~electronic cash~~ difference.